UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,705	10/13/1999	JUNYA KAKU	991142	7820

23850	7590	01/26/2006

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EXAMINER
NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/417,705	KAKU, JUNYA
	Examiner	Art Unit	
	LUONG T. NGUYEN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *10 November 2005*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *16-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *16-23* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see Argument, filed 11/10/2005, with respect to claims 16-23

have been fully considered and are persuasive. The Office Action mailed on 08/11/2005 has

been withdrawn. A new non-final Office Action sets forth below.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 16, 17, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yokouchi et al. (US 6,628,328) in view of Kanai et al. (US 5,835,164).

Regarding claim 16, Yokouchi et al. discloses a digital camera, comprising:

an imaging device having an imaging surface which generates an image signal

corresponding to an optical image of an objective scene (CCD 1, figure 1, column 6, lines 60-

67);

a processor (processing circuit 6, figure 1, column 7, lines 5-15) for subjecting the image

signal generated by said imaging surface to signal processes including a thinning process

(thinning read mode, column 7, lines 52-67) so as to create processed image data at a rate of one

screen per a first time period;

a memory (DRAM 7, figure 1, column 7, lines 5-15) having a single input/output port;

a writer for writing to said memory the processed image data output from said processor

(CPU 17 control the operation to write image data from processing circuit 6 to DRAM 7, figure

1, column 7, lines 29-30);

a reader for reading the processed image data stored in said memory (CPU 17 control the

operation to read out image data from DRAM 7 to transfer to compression/expansion circuit 8,

figure 1, column 7, lines 29-30);

a displayer for displaying an image based on the processed image data read out by said

reader (LCD 13, figure 1, column 7, lines 35-55);

a first instructor for instructing said processor to suspend the thinning process at a time of

accepting a recording operation (a still picture recorded in the recording medium by switching

over from the skipping read mode (thinning read mode) to all-pixel read mode, column 9, lines

1-21. This indicates that the thinning read out mode is suspended at the time of recording);

a recorder for recording to a recording medium (recording medium 9, figure 1, column 7,

lines 10-15) the processed image data stored in said memory in response to the recording

operation;

Yokouchi et al. fails to specifically disclose a reader for reading the processed image data

stored in said memory at a rate of one screen per a second time period which is shorter than the

first time period. However, Kanai et al. teach a video signal processor, which comprises a

memory, in which the digital data being written into the memory at a first rate based on a writing

control clock and being read from the memory at a second rate, which is n times the first rate, n

is an integer greater than one (see abstract, column 57, lines 29-38). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the

device in Yokouchi et al. by the teaching of Kanai et al. in order to reduce flicker (see abstract).

Regarding claim 17, Yokouchi et al. discloses wherein said memory is an SDRAM

(DRAM 7, figure 1, column 7, lines 5-15), and said writer includes a buffer (inherently included

in the apparatus) for holding the processed image data output from said processor and a

transferor for transferring to said memory the processed image data held by said buffer (the

processed image data from processing circuit 6 is transferred to DRAM 7, figure 1).

Regarding claim 21, Nakai et al. discloses the second time period is one over an integer

of the first time period (Nakai et al. discloses the digital data being written into the memory at a

first rate based on a writing control clock and being read from the memory at a second rate,

which is n times the first rate, n is an integer greater than one, see abstract, column 57, lines 29-

38; since the rate is reciprocal of the time period, the second time period is one over an integer of

the first time period).

Regarding claim 22, Yokouchi et al. discloses said recorder records to said record

medium the processed image data in a compressed state (compressed image data is recorded in

recording medium 9, figure 1, column 7, lines 10-15).

Regarding claim 23, Yokouchi et al. discloses a second instructor for instructing said

reader to suspend a reading process in association with an instructing process of said first

instructor (Yokouchi et al. discloses that when displaying the object image in the liquid display

unit, a skipping read mode is used; when a still picture is recorded in the recording medium, the

skipping read mode is switched to the all-pixel read mode, column 9, lines 1-20. This means that

when a still picture is recorded in the recording medium, the skipping read mode is suspended).

4.   Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokouchi et

al. (US 6,628,328) in view of Kanai et al. (US 5,835,164) further in view of Hirabyashi et al. (US

6,295,596).

Yokouchi et al. and Kanai et al. fail to specifically disclose a changer for changing a

selecting a memory area at an interval of the first time period; said writer writes the processed

image data to one of said plurality of memory areas based on a changing result of said changer;

and said reader reads the processed image data from another of said plurality of memory areas

based on the changing result of said changer.

However, Hirabayashi et al. disclose memory 11 (SDRAM) has two banks A and B, the

data can be written and read out, independently of each other, these banks can be switched

(figure 1, column 4, line 63 – column 5, line 3). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify the device in Yokouchi et

al. and Kanai et al. by the teaching of Hirabayashi et al. in order to obtain a device in which data

can be read out fast by switching the banks (column 6, lines 29-30).

Regarding claim 19, Hirabayashi et al. disclose the changer changes the selecting of the memory area in a predetermined order (column 6, line 64 – column 7, line 40).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NGOCYEN VU can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
01/23/06

LUONG T. NGUYEN
PATENT EXAMINER